

1. A method for detecting a state of an electric motor comprising:
(a) energizing the motor with electrical power such that an associated current applied to the electric motor rises over time toward a reference level;
(b) determining an amount of time that elapses between when the motor is energized and the reference level is reached; and,
(c) evaluating a state of the motor based upon the determined amount of time.

2. The method of claim 1, wherein the reference level is a current at which the motor is to be operated.

3. The method of claim 1, wherein step (c) comprises:
determining that the motor is stalled when the amount of time is less than a threshold value.

4. The method of claim 1, wherein step (c) comprises:
determining a speed of the motor based upon the determined amount of time.

5. The method of claim 1, wherein step (b) comprises:
measuring the amount of time that elapses.

6. A method for detecting an operational state of an electric motor comprising:

(a) supplying electrical power to the motor, said electrical power having a current waveform and a voltage waveform, wherein in an initial rise time period that starts at a time the electrical power is supplied to the motor, the current waveform rises toward a reference level and the voltage waveform remains substantially steady, and in a chopping time period following the rise time period the voltage waveform is cycled on and off and the current waveform rises and falls accordingly;

(b) monitoring a waveform of the electrical power; and,
(c) determining an operational state of the motor from the monitoring of the waveform.

7. The method of claim 6, wherein step (b) comprises:
monitoring the voltage waveform through a low-pass filter and sampling a voltage therefrom after a selected delay from the start of the initial rise time period.

8. The method of claim 7, wherein step (c) comprises:
identifying the motor as stalled when the sampled voltage is below a threshold level.

9. The method of claim 6, wherein step (b) comprises:
measuring a duration of the rise time period.

10. The method of claim 9, wherein step (c) comprises:
identifying the motor as stalled when the measured duration of the rise time period is below a threshold level.

11. The method of claim 9, wherein an end of the rise time period is identified by detecting a beginning of the chopping time period.

12. A motorization assembly comprising:
an electric motor;
an amplifier that selectively supplies the motor with electric power to thereby drive the same, such that when the power is supplied an associated current is generated that rises over time toward a reference level;
detection means for determining an amount of time that elapses between when electrical power is supplied and when the reference level is reached by the current; and,
analyzing means for evaluating a state of the motor based on the determination of the detection means.

13. The motorization assembly of claim **12**, wherein the electric motor is a stepper motor.

14. The motorization assembly of claim **12**, wherein the amplifier is a chopper amplifier.

15. The motorization assembly of claim **12**, wherein the detection means includes:

a timer that measure the amount of time that elapses.

16. The motorization assembly of claim **12**, wherein the detection means includes:

an RC circuit that produces a voltage proportional to the amount of time that elapses.

17. The motorization assembly of claim **12**, wherein the analyzing means determines a speed of the motor.

18. The motorization assembly of claim **12**, wherein the analyzing means determines if the motor is stalled.

19. A motorized system comprising:

an electric motor;

an amplifier that selectively supplies the motor with electric power to thereby drive the same, such that when the power is supplied an associated current is generated that rises over time toward a reference level;

detection means for monitoring the supplied electrical power; and,

analyzing means for evaluating a state of the motor based on the monitoring of the detection means.

20. The motorized system of claim **20**, said detection means comprising:

a conditioning circuit through which a voltage associated with the supplied electrical power is sampled at a selected time delay after the

electrical power is initially supplied, wherein the conditioning circuit is configured and the time delay selected so that the sampled voltage is below a threshold level when the motor is stalled.